

# AI for anomaly detection in PBF-LB/M Near-Infrared Process Monitoring

## Enabling Industries Through Improved Quality Control and Qualification



### Motivation and Relevance

- Currently, reliably detecting anomalies in Near-Infrared (NIR) Monitoring is challenging
- For reliable anomaly detection in quality control (QC), a reference “ok” NIR image (without anomalies) is required to compare with taken ones, to detect anomalies

### Approach

- Train a Neuronal Network (Artificial Intelligence AI) to create “ok” NIR images based on scan strategy information
- Investigation, if the difference of the “ok” NIR image with the taken one is suitable to detect anomalies

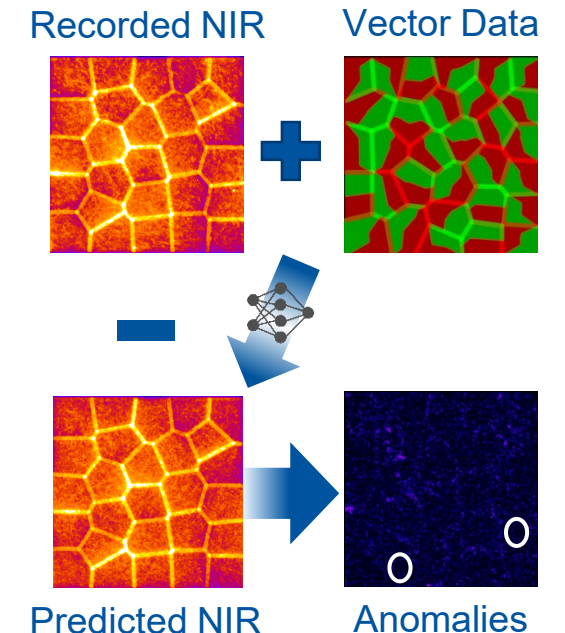
### Results

- Anomaly detection has been demonstrated in a first study successfully
- Promising results motivate to further explore predicting images with varying geometries and correlating them with defects (e.g., from CT-Scans)

### Research Area

- Data preparation software

### Picture



### Contact



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